tagging any other message of the second transaction with the transaction-counter identifier as changed; and,

transmitting the first message, the last message, and the any other message of the second transaction.

21. A computer-implemented method for performance within a message transaction system comprising:

at a sender, for a transaction comprising an ordered plurality of messages, tagging a first message of the transaction with a first-message identifier and tagging a last message of the transaction with a last-message identifier;

transmitting the messages of the transaction from the sender to a receiver; and,

at the receiver, determining whether the tagged first message of the transaction and the tagged last message of the transaction have been received, and upon so determining, concluding at least that a transaction having a proper first and last message has been received.

23. The method of claim 22, further comprising, at the receiver, determining whether each message received after the first message of the transaction is tagged as part of the transaction, until the tagged last message of the transaction has been received, and concluding at least that a transaction having a proper first and last message has been received only upon so determining.

32. The medium of claim 1, wherein the any other message of the transaction is not sequentially tagged.

33. The medium of claim 6, wherein the any other message of the transaction is not sequentially tagged.

34. The medium of claim 12, wherein any other message of the transaction is not sequentially tagged.

35. The medium of claim 17, wherein any other message of the transaction is not sequentially tagged.

36. The method of claim 21, wherein any other message of the transaction is not sequentially tagged.

37. The sender computer of claim 24, wherein any other message of the transaction is not sequentially tagged.

38. The sender computer of claim 26, wherein any other message of the transaction is not sequentially tagged.

39. The receiver computer of claim 27, wherein any other message of the transaction is not sequentially tagged.

40. The receiver computer of claim 29, wherein any other message of the transaction is not sequentially tagged.

41. The system of claim 30, wherein any other message of the transaction is not sequentially tagged.

42. The system of claim 31, wherein any other message of the transaction is not sequentially tagged.

REMARKS

Original claims 1-31 have been examined. No claims have been allowed. Claims 7, 21 and 23 have been amended to correct minor informalities, without narrowing their scope, and claims 32-42 have been added to this amendment. Applicants appreciate the examiner's time and the courtesy extended during the March 13, 2003 telephonic interview with Applicants'

PATENT
Attorney Docket No. 212662

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

DADIOMOV et al.

Group Art Unit: 2143

Application No. 09/499,832

Examiner: Avellino, Joseph E.

Filed: February 8, 2000

For: IDENTIFICATION OF TRANSACTIONAL BOUNDARIES

AMENDMENTS TO THE CLAIMS MADE IN RESPONSE TO OFFICE ACTION DATED JANUARY 15, 2003

IN THE CLAIMS:

Please amend claims 7, 21, and 23, add claims 32-42 as follows:

7. (Amended) The medium of claim 6, the method further comprising:

changing the transaction-counter identifier;

tagging a first message of a second transaction with the first-message identifier and the transaction-counter identifier as changed;

tagging a last message of the second transaction with the ~~first~~last-message identifier and the transaction-counter identifier as changed;

tagging any other message of the second transaction with the transaction-counter identifier as changed; and,

transmitting the first message, the last message, and the any other message of the second transaction.

21. (Amended) A computer-implemented method for performance within ~~an~~a message transaction ~~message~~ system comprising:

at a sender, for a transaction comprising an ordered plurality of messages, ~~uniquely~~ tagging a first message of the transaction with a first-message identifier and ~~uniquely~~ tagging a last message of the transaction with a last-message identifier;

transmitting the messages of the transaction from the sender to a receiver; and,

at the receiver, determining whether the tagged first message of the transaction and the tagged last message of the transaction ~~as have been uniquely tagged~~ have been received, and upon so determining, concluding at least that a transaction having a proper first and last message has been received.

23. (Amended) The method of claim 22, further comprising, at the receiver, determining whether each message received after the first message of the transaction is tagged as part of the transaction, until the tagged last message of the transaction ~~as has been uniquely tagged~~ has been received, and concluding at least that a transaction having a proper first and last message has been received only upon so determining.

32. (New) The medium of claim 1, wherein the any other message of the transaction is not sequentially tagged.

33. (New) The medium of claim 6, wherein the any other message of the transaction is not sequentially tagged.

34. (New) The medium of claim 12, wherein any other message of the transaction is not sequentially tagged.

35. (New) The medium of claim 17, wherein any other message of the transaction is not sequentially tagged.

36. (New) The method of claim 21, wherein any other message of the transaction is not sequentially tagged.

37. (New) The sender computer of claim 24, wherein any other message of the transaction is not sequentially tagged.

38. (New) The sender computer of claim 26, wherein any other message of the transaction is not sequentially tagged.

39. (New) The receiver computer of claim 27, wherein any other message of the transaction is not sequentially tagged.

40. (New) The receiver computer of claim 29, wherein any other message of the transaction is not sequentially tagged.

41. (New) The system of claim 30, wherein any other message of the transaction is not sequentially tagged.

42. (New) The system of claim 31, wherein any other message of the transaction is not sequentially tagged.

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For: IDENTIFICATION OF TRANSACTIONAL BOUNDARIES

PENDING CLAIMS AFTER AMENDMENTS MADE IN RESPONSE TO OFFICE ACTION DATED JANUARY 15, 2003

1. A machine-readable medium having instructions stored thereon for execution by a processor of a sender within a message transaction system to perform a method comprising:

tagging a first message of a transaction with a first-message identifier;

tagging a last message of the transaction with a last-message identifier; and,

transmitting the first message, the last message, and any other message of the transaction.

2. The medium of claim 1, wherein the first-message identifier comprises a bit set to one when tagged and otherwise set to zero.

3. The medium of claim 1, wherein the last-message identifier comprises a bit set to one when tagged and otherwise set to zero.

4. The medium of claim 1, the method further comprising, prior to transmitting, tagging the first message, the last message, and the any other message of the transaction with a transaction-counter identifier.

5. The medium of claim 4, wherein the transaction-counter identifier comprises an ordered-counter of bits.

6. A machine-readable medium having instructions stored thereon for execution by a processor of a sender within a message transaction system to perform a method comprising:

tagging a first message of a transaction with a first-message identifier and a transaction-counter identifier;

tagging a last message of the transaction with a last-message identifier and the transaction-counter identifier;

tagging any other message of the transaction with the transaction-counter identifier; and

transmitting the first message, the last message, and the any other message of the transaction.

7. The medium of claim 6, the method further comprising:

changing the transaction-counter identifier;

tagging a first message of a second transaction with the first-message identifier and the transaction-counter identifier as changed;

tagging a last message of the second transaction with the last-message identifier and the transaction-counter identifier as changed;

tagging any other message of the second transaction with the transaction-counter identifier as changed; and,

transmitting the first message, the last message, and the any other message of the second transaction.

8. The medium of claim 6, wherein the first-message identifier comprises a bit set to one when tagged and otherwise set to zero.

9. The medium of claim 6, wherein the last-message identifier comprises a bit set to one when tagged and otherwise set to zero.

10. The medium of claim 6, wherein the transaction-counter identifier comprises an ordered counter of bits.

11. The medium of claim 7, wherein the transaction-counter identifier comprises an ordered counter of bits, and changing the transaction-counter identifier comprises incrementing the ordered counter of bits.

12. A machine-readable medium having instructions stored thereon for execution by a processor of a receiver within a message transaction system to perform a method comprising:

receiving a first message;

determining whether the first message is tagged with a first-message identifier;

upon determining that the first message is tagged with the first-message identifier,

repeating receiving an additional message until the additional message received is tagged with one of the first-message identifier and a last-message identifier;

upon determining that the additional message is tagged with the last-message identifier, concluding at least that a transaction having a proper first and last message has been received;

otherwise concluding that an error has occurred; and,

otherwise concluding that an error has occurred.

13. The medium of claim 12, wherein repeating receiving an additional message until the additional message received is tagged with one of the first-message identifier and a last-message identifier comprises repeating receiving the additional message until the additional message received is tagged with one of the first-message identifier, the last-message identifier

and a transaction-counter identifier unequal to a transaction-counter identifier with which the first message is tagged.

14. The medium of claim 13, wherein upon determining that the additional message is tagged with the last-message identifier; concluding at least that a transaction having a proper first and last message has been received comprises upon determining that the additional message is tagged with the last-message identifier and with a transaction-counter identifier equal to a transaction-counter identifier with which the first message is tagged, concluding at least that a transaction having a proper first and last message has been received only upon so determining.

15. The medium of claim 12, wherein the first-message identifier comprises a bit set to one when tagged and otherwise set to zero.

16. The medium of claim 12, wherein the last-message identifier comprises a bit set to one when tagged and otherwise set to zero.

17. A machine-readable medium having instructions stored thereon for execution by a processor of a receiver within a message transaction system to perform a method comprising:

receiving a first message;

determining whether the first message is tagged with a first-message identifier;

upon determining that the first message is tagged with the first-message identifier,

repeating receiving an additional message until the additional message received is tagged with one of the first-message identifier, a last-message identifier, and a transaction-counter identifier unequal to a transaction-counter identifier with which the first message is tagged;

upon determining that the additional message is tagged with the last-message identifier and with a transaction-counter identifier equal to a transaction-counter identifier with

which the first message is tagged, concluding at least that a transaction having a proper first and last message has been received;

otherwise concluding that an error has occurred; and,

otherwise concluding that an error has occurred.

18. The medium of claim 17, wherein the transaction-counter identifier comprises an ordered counter of bits.

19. The medium of claim 17, wherein the first-message identifier comprises a bit set to one when tagged and otherwise set to zero.

20. The medium of claim 17, wherein the last-message identifier comprises a bit set to one when tagged and otherwise set to zero.

21. A computer-implemented method for performance within an transaction message system comprising:

at a sender, for a transaction comprising an ordered plurality of messages, tagging a first message of the transaction with a first-message identifier and tagging a last message of the transaction with a last-message identifier;

transmitting the messages of the transaction from the sender to a receiver; and,

at the receiver, determining whether the tagged first message of the transaction and the tagged last message of the transaction have been received, and upon so determining, concluding at least that a transaction having a proper first and last message has been received.

22. The method of claim 21, further initially comprising, at the sender, tagging each message of the transaction as part of the transaction.

23. The method of claim 22, further comprising, at the received, determining whether each message received after the first message of the transaction is tagged as part of the transaction, until the tagged last message of the transaction has been received, and concluding at least that a transaction having a proper first and last message has been received only upon so determining.

24. A sender computer of a message transaction system comprising:

a communication device; and,

a computer program designed to set transactional boundaries among messages, such that a receiver computer is able to determine whether at least a proper first and last message of a transaction have been received, and to transmit the messages via the communications device.

25. The sender computer of claim 24, further comprising a processor and a computer-readable medium, such that the computer program is executed by the processor from the computer-readable medium.

26. A sender computer of a message transaction system comprising:

a communication devices; and

means for setting transactional boundaries among messages, such that a receiver computer is able to determine whether at least a proper first and last message of a transaction have been received, and for transmitting the message via the communications device.

27. A receiver computer of a message transaction system comprising:

a communications device; and,

a computer program designed to receive messages via the communications device, and to determine transactional boundaries among the messages, such that the program is able to determine whether at least a proper first and last message of a transaction have been received.

28. The received computer of claim 27, further comprising a processor and a computer-readable medium, such that the computer program is executed by the processor from the computer-readable medium.

29. A receiver computer of a message transaction system comprising:

a communications device; and,

means for receiving messages via the communications device, and for determining transactional boundaries among the messages, such that the means is able to determine whether at least a proper first and last message of a transaction have been received.

30. A computerized message transaction system comprising:

a first computer designed to at least set transactional boundaries among messages, and to transmit the messages, and,

a second computer designed to at least receive the messages, and to determine the transactional boundaries among the messages, such that the second computer is able to determine whether at least a proper first and last message of a particular transaction have been received.

31. A computerized message transaction system comprising:

means for setting transactional boundaries among messages, and transmitting the message; and,

means for receiving the messages, and for determining the transactional boundaries among the messages, such that the means is able to determine whether at least a proper first and last message of a particular transaction have been received.

32. The medium of claim 1, wherein the any other message of the transaction is not sequentially tagged.

33. The medium of claim 6, wherein the any other message of the transaction is not sequentially tagged.

34. The medium of claim 12, wherein any other message of the transaction is not sequentially tagged.

35. The medium of claim 17, wherein any other message of the transaction is not sequentially tagged.

36. The method of claim 21, wherein any other message of the transaction is not sequentially tagged.

37. The sender computer of claim 24, wherein any other message of the transaction is not sequentially tagged.

38. The sender computer of claim 26, wherein any other message of the transaction is not sequentially tagged.

39. The receiver computer of claim 27, wherein any other message of the transaction is not sequentially tagged.

40. The receiver computer of claim 29, wherein any other message of the transaction is not sequentially tagged.

41. The system of claim 30, wherein any other message of the transaction is not sequentially tagged.

42. The system of claim 31, wherein any other message of the transaction is not sequentially tagged.